2) Cross connection charges and termination equipment charges may reflect the LECs' choice of either a centralized (undedicated) or distributed (dedicated) collocation configuration... All LECs should explain whether they are using a centralized or distributed collocation system and the benefits and drawbacks (from both an Engineering and Cost perspective) with each kind of system.

RESPONSE:

For expanded interconnection, the NTCs utilize available central office space that is as close to the central office equipment as possible so repeaters are not required. Where possible, there is a shared common interconnector area separated from the NTC equipment in which the collocators' multiplexing nodes are located. Some environmental services, such as air conditioning and heating, are shared.

Since each interconnector's needs differ, the engineering requirements of each are addressed individually. This includes fiber placement within the central office, as well as equipping the frame for the specific number and type of special access cross connects.

ISSUE:

3) All LECs that include a POT frame or POT bay as part of their investment for any rate element should explain why this piece of equipment is necessary for provision of interconnection service, and why cross-connection cannot instead be established directly from the interconnector's cage to their MDF.

RESPONSE:

The NTCs include a Point of Termination ("POT") bay as part of their investment. As the NTCs have demonstrated in this proceeding, 16 the POT bay serves as the single point of termination between the interconnector's facilities and the NTCs' facilities. Under this approach, which has been successfully implemented in the state jurisdiction, the POT bay is established at or near the multiplexing node, permitting the interconnector to perform its activities at a single location. The alternative to a POT would be for the interconnector to perform its provisioning and maintenance activities at multiple locations in a particular central office, which would require increased use of escorts, thereby increasing costs to the interconnector, as well as generating additional security problems. 17

ISSUE:

4) BellSouth computes investment for its DS1 and DS3 cross connect charges by dividing raw investment by 0.85, stating that this reflects the fact that typical central office digital circuit equipment is 85 percent utilized. BellSouth should explain...

See NYNEX Telephone Companies, Opposition to Petition to Reject or, in the Alternative, Suspend and Investigate, dated April 5, 1993 at pp. 31-32.

Attached as Attachment L is a July 16, 1993 ex parte presentation by the NTCs which describes in greater detail the benefits of the use of the POT bay in expanded interconnection arrangements.

RESPONSE:

Not applicable to the NTCs.

ISSUE:

(i) Security Charges

1) LECs should justify any security requirements they impose on interconnectors. LECs should address whether it is reasonable to require LEC-provided security escorts when an interconnector is merely going to and from the collocation area to work on its own equipment; when an interconnector is working in common operational areas such as the LEC vaults, manholes, risers and racks; and when an interconnector needs to reach its collocated space in unstaffed offices or during off-hours visits, particularly under emergency circumstances.

RESPONSE:

The NTCs' tariff provides that the interconnector must comply with the NTCs' practices relating to fire prevention, safety and security. The NTCs will provide access to the interconnector through a card system, where available, and will issue access cards to employees and contractors designated by the interconnector. Where a card access system is not available, an NTC escort may be required.

Since the interconnector will be working on the NTCs' premises, security procedures such as those described above are entirely reasonable. Moreover, during the two years that expanded interconnection has been operational in the state jurisdiction, the NTCs have never billed an interconnector for an escort to the interconnector's cage. The only instance in

which an interconnector has been billed for an escort is in NYT, where escorts are required to supervise splicing work by interconnectors in NYT cable vaults. 18

OUESTION:

(j) Virtual Collocation Rates

ISSUE:

1) Ameritech should explain why it is reasonable for it to develop a leaseback charge based on the manufacturer's suggested price, and to charge that price to all interconnectors using the same type of equipment, rather than basing it on the price the interconnector actually paid for the equipment.

RESPONSE:

Not applicable to the NTCs. Subsections (2) and (3) are also directed to Ameritech and are not applicable to the NTCs.

It should be noted that both MFS and Teleport have conceded that escorts to supervise work in cable vaults are reasonable. See Teleport Petition to Reject or Suspend at Appendix A, Item 6; MFS Petition to Reject or Suspend, "Security Escort", Attachment F).

B. ARE THE RATE STRUCTURES ESTABLISHED IN THE LECs' EXPANDED INTERCONNECTION TARIFFS REASONABLE?

ISSUE:

(a) LECs should address the question of whether the rate structures established in their expanded interconnection tariffs contain excessive bundling of rate elements. LECs that have not tariffed separate rate elements for items such as space preparation, cage construction, frames, panels, cabling, or racks, should explain what they did instead and why this is reasonable. LECs that bundle cage construction charges with space preparation charges should explain why it is reasonable to do so, and why having a separate cage construction charge is not a reasonable alternative. LECs that bundle other charges into their floor space rental rates should explain exactly what charges are included and why they believe it is appropriate to bundle the charges in this manner.

RESPONSE:

The NTCs' rate structure is not unnecessarily bundled. The only bundled elements are the cage construction and space preparation (interconnector space) NRC. This NRC includes the design and engineering of the space and installation of cable racks, cabinets, cage lighting and power equipment. It would serve no purpose to "unbundle" these various elements into separate charges, because it is simply not possible for the interconnector to take any of the elements separately. All of these items are required to provide an operational cage area for expanded interconnection.

- (b) LECs should justify the rate structures they have chosen to recover central office construction charges.
 - (1) First, LECs that assess nonrecurring charges to recover interconnector-specific construction costs should explain how such a rate structure will avoid double recovery of costs. Construction may be of economic value long after the term of service desired by the original interconnector. Payment of the full amount of construction costs by the original interconnector may lead, therefore, to double recovery of costs if another interconnector pays for and uses the same construction after it has been vacated by the original interconnector. Also, any LEC that includes the present discounted value of future maintenance expenses in nonrecurring construction charges should explain why it is reasonable to do so.

RESPONSE:

The NTCs' NRC for construction and space preparation does not recover interconnector-specific construction costs.

Rather, the NTCs' NRC is an averaged rate based on the costs associated with the construction of 12 different multiplexing nodes in various NTC central offices.

If an interconnector wished to vacate the facility, it may, with the NTCs' consent, assign its rights to that facility to another interconnector and in such case a construction NRC will not be due the NTCs. (See Section 28.7.16) In the unlikely event, however, that an interconnector vacates the facility without assigning its rights to another interconnector, a second interconnector using the facility will be assessed a full NRC. This approach is consistent with an averaged pricing approach since the NTCs will incur costs in preparing the multiplexing node for a new interconnector. Furthermore, this approach also avoids possible

discrimination. For example, if the NTCs did not charge an NRC for existing vacant cages, an interconnector that desired space in an office where such a cage was available could obtain a cage without payment of an NRC, while a similarly situated interconnector that placed its order immediately after the first interconnector, or that desired an interconnection arrangment in an office where a vacant cage was not available, would be required to pay a full NRC of \$54,900.

ISSUE:

(2) Second, LECs should describe and justify the method by which they are recovering common construction costs. LECs are charging interconnectors a portion of common construction costs based on total estimated demand by interconnectors for central office space. Such LECs should explain and document their demand estimates. Other LECs charge common construction costs to the first interconnector, with a pro rata refund if other interconnectors take service within a specific time Such LECs should justify the time period they period. chose and explain why there should be any time limit on such refunds. LECs that charge the total amount of common construction to the first interconnector with no provision for a pro rata refund should explain why such a rate structure does not unreasonably disadvantage the first interconnector.

RESPONSE:

The NTCs recover common construction costs through the building space NRC of \$54,900. The amount of the NRC was not determined based on estimated demand by interconnectors for central office space. Rather, the NTCs decided that the most reliable estimate of these costs would be an average of the actual nonrecurring costs the NTCs incurred to provide multiplexing nodes. To develop an average cost, the NTCs used the total costs of each of the 12 multiplexing nodes for which

they rendered bills to state expanded interconnection customers. All of the multiplexing node construction costs reflect the use of outside contractors who were selected by a competitive bidding process. These data provide the best evidence of the costs that the NTCs will incur to provision multiplexing nodes.

ISSUE:

(c) SWB and the LECs that charge a NRC for equipment instead of recovering the cost of such equipment through recurring charges should explain why they believe this is reasonable. Such LECs should explain whether the equipment is dedicated for its full life to the interconnector that pays the NRC.

RESPONSE:

The NTCs include the cost of racking and support structures in the NRC for the multiplexing node. These structures are installed at the same time that the interconnector's cage is constructed and will be dedicated to the interconnector that occupies the cage. These structures are necessary for each interconnector's cage, and it is reasonable to include the cost for them in the multiplexing node NRC.

ISSUE:

(d) LECs that require interconnectors to pay some or all construction or other nonrecurring charges prior to commencement of the work should explain why they believe such a requirement is reasonable.

RESPONSE:

The NTCs' tariff requires that interconnectors pay 20% of the total Space and Facility nonrecurring charges at the time a completed application is submitted, and an additional 30% of the total Space and Facility nonrecurring charges at the time the interconnector accepts the NTCs' design and construction proposal. The balance of Space and Facility nonrecurring charges are due at the time the NTCs grant occupancy of the multiplexing node. 2

The requirement that the interconnector pay, in advance, a portion of the total cost of constructing its multiplexing node is entirely reasonable and is consistent with standard commercial construction contracts, which customarily require payment of a portion of the total contract price prior to completion of the project. Furthermore, this provision protects the NTCs and their ratepayers from losses in the event the interconnector decides to cancel its order for expanded interconnection after construction is begun. Finally, the interconnector is fully protected because, if the request is withdrawn, the interconnector will be responsible only for the nonrecurring costs incurred by the NTCs on its behalf. If the costs incurred by the NTCs at the time of termination by the interconnector are less than the amount paid by the

¹ Sections 28.3.1(c); 28.6.1(c).

² Ibid.

³ Section 28.3.1(d).

interconnector to the NTCs, the NTCs will refund the difference.

ISSUE:

(e) LECs that provide electric power in increments and not on an actual usage basis should explain why they chose the increment level they did, why they cannot or will not supply power in smaller increments, why they cannot or will not supply power on an actual usage basis, and why the choice they made is reasonable.

RESPONSE:

The NTCs provide electric power on an actual usage basis and bill the interconnector for that actual usage on a per amp basis, which is the smallest possible increment.

ISSUE:

(f) Section 19.4(A) of Bell Atlantic's tariff requires a physical collocator to purchase either a standard enclosure (<u>i.e.</u>, metal cage) or non-standard enclosure (<u>i.e.</u>, metal cage with roof).

RESPONSE:

Not applicable to the NTCs.

ISSUE:

(g) LECs whose tariffs contain provisions allowing the LEC to charge for additional, extraordinary, or individually determined costs (<u>i.e.</u>, costs that are not specifically and individually listed in their tariffs) should explain why inclusion of such provisions is reasonable. These LECs should also define the term they use to permit recovery of such costs (<u>e.g.</u>, additional, extraordinary).

RESPONSE:

The NTCs' tariff does not contain such a provision, except with respect to microwave expanded interconnection. The costs for the provisioning of microwave antenna support structures and associated transmitter/receiver space vary greatly depending upon the customer's specific needs.

Therefore, the NTCs proposed in their tariff to price the initial provisioning of microwave antenna support structures and the transmitter/receiver space on an individual case basis.

C. ARE THE LECs' PROVISIONS REGARDING INTERCONNECTION SPACE SIZE, EXPANSION, AND LOCATION REASONABLE?

RESPONSE:

The NTCs' tariff provisions regarding interconnection space size, expansion and location are reasonable. The tariff provides for a standard size multiplexing node of 100 square feet. Customers may, however, request a smaller multiplexing node (minimum 80 square feet) or a larger multiplexing node (maximum 300 square feet) in 20 square foot increments. The 80 square foot minimum was chosen to comply with Bellcore's Network Equipment Building System ("NEBS") Generic Equipment Requirement. The reason for imposing a 300 square foot maximum was to permit interconnectors sufficient flexibility to expand their multiplexing node, while ensuring that limited central office space is allocated in a manner that will permit all prospective interconnectors to establish multiplexing nodes.

The NTCs believe that the Commission may have misunderstood the provisions of the NTCs' tariff concerning

¹ Section 28.4.2(c).

² Ibid.

These requirements state that minimum aisle spacing should be no less than 44 inches for main cross aisles and 36 inches for perimeter aisles (NEBS TR-EOP-000063, Issue 3, March 1988, Page 2-10).

provision of less than 100 square feet of space. The interconnector will not be charged for 100 square feet of space even if less than 100 square feet of space is delivered by the NTCs. Rather, in the event an interconnector is provided with less than 100 square feet of space, either at the interconnector's request, or due to the physical layout requirements or space limitations of the particular central office, the interconnector will be charged only for the actual amount of space delivered. Furthermore, if the NTCs deliver a larger multiplexing node to the interconnector than requested due to the physical layout requirements within the central office, the interconnector will pay only for the space requested.

The NTCs do not currently have in place specific procedures for processing orders by interconnectors for additional space. Rather, all space orders, both for new or additional space, will be processed in the same manner since the work effort involved will generally be the same. If experience indicates that there are significant differences in work effort, the NTCs will reevaluate their procedures to determine whether streamlined procedures for processing orders for additional space could be implemented. 5

⁴ Ibid.

It is important to note that, in the two years that expanded interconnection has been operational in the state jurisdiction the NTCs have not received orders from any interconnector for additional space within the same central office.

The NTCs' policy regarding provision of contiguous space for expansion and direct cable between noncontiguous spaces is set forth in Sections 28.1.2 and 28.1.3 of the tariff. The tariff provides that, while the NTCs cannot guarantee that expansion space will be contiguous to the interconnector's existing multiplexing node, the NTCs will make reasonable efforts to assign contiguous space. In an environment where central office space is shared by the NTCs with multiple interconnectors, it simply may not be possible to assign contiguous space for expansion without disturbing the operations of the NTCs of other interconnectors.

Finally, the NTCs' tariff provides interconnectors the right to interconnect equipment contained in their separate multiplexing nodes within the same central office, whether or not the nodes are contiguous.

In NYT space, the interconnector is responsible for supplying, installing and maintaining the cabling between multiplexing nodes, while in NET the interconnector supplies the material, and the installation and maintenance functions are performed by NET.

D. ARE LEC TARIFF PROHIBITIONS AGAINST EXPANDED INTERCONNECTION WITH DARK FIBER SERVICES CONSISTENT WITH THE SPECIAL ACCESS ORDER?

RESPONSE:

Not applicable to the NTCs.

E. DO THE LECS' TARIFFS PREVENT INTERCONNECTOR CONTROL OVER CHANNEL ASSIGNMENT ON THE INTERCONNECTORS' NETWORKS AND, IF SO. IS SUCH AN ARRANGEMENT REASONABLE?

RESPONSE:

The NTCs' tariff provides that "[t]he Telephone Company retains the right to maintain assignment control to the point of termination." Pursuant to this provision, the NTCs simply maintain channel control on their network. Such control is absolutely essential for efficient use of the NTCs' network. This provision does not, however, give the NTCs control over how the interconnector assigns channels on its network. Rather, the interconnector maintains channel assignment control on its network. Channel assignments can be made by the interconnector at three different points. First, the NTCs' tariff gives the interconnector control over cross connects at the Point of Termination ("POT") that is installed at the multiplexing node as the point of demarcation between the LEC and the interconnector. The interconnector can also control channel assignments inside the multiplexing node, or at the interconnector's node, in its own network.

These channel assignment procedures have already been used by the NTCs in the state expanded interconnection arrangements. In the two years that these procedures have been

¹ Section 28.7.10.

in use, no significant operational difficulties in connection with channel assignments have been experienced by either the NTCs or interconnectors.

Furthermore the NTCs' channel assignment procedures for expanded interconnection are consistent with the procedures used by the NTCs to manage channel assignment with their IXC In NYT, the interconnector provides the POT Bay customers. assignment to NYT on an Access Service Request (ASR). Although the channel assignment process is mechanized, manual entry of this information can be accomplished. This procedure is consistent with the manner in which all interexchange access In NET, the channel assignment procedure orders are processed. is totally mechanized and does not allow for the manual entry of POT Bay assignments. As with NYT, NET's channel assignment process is consistent with the manner in which interexchange carrier orders are processed. In both NYT and NET, the POT bay assignment is sent to the interconnector at the same time that the NTCs' implementation group receives it. 2

Attached as Attachment M is a diagram illustrating how each of the parties maintains control of channel assignment on its network.

It must be noted that Teleport's comment quoted in the <u>Designation Order</u> (at p. 23) concerning pre-wiring by the LECs does not apply to the NTCs. In NYT, pre-wiring is performed entirely by the interconnector at its option, while NET will pre-wire, but only at the interconnector's request.

F. ARE THE LECs' PROVISIONS REGARDING WAREHOUSING OR EFFICIENT USE OF SPACE REASONABLE?

RESPONSE:

There is no general requirement in the NTCs' tariff that the interconnector "efficiently use" its expanded interconnection space. Rather, the concept of efficient use is employed in only two limited circumstances: when all of the space in a central office has been exhausted, and space is required to accommodate (1) another interconnector; or (2) the NTCs' service. In those limited circumstances, the NTCs reserve the right to take back from interconnectors, on ninety days notice, space that is not being efficiently used. This tariff provision prohibits interconnectors from warehousing space in NTC central offices, but only in cases where such action by the interconnector prevents the NTCs or other interconnectors from using that space to provide service to their customers.

The NTCs' tariff contains no provisions regulating the amounts of floor space items such as ancillary equipment or file cabinets may occupy in an interconnector's cage, nor does it contain a time limit within which an interconnector must become operational.

[&]quot;Efficient use" means that the customer has interconnected with the NTCs' special access service(s) and that substantially all of the floor space of its cage is occupied by equipment needed to provide service. (Section 28.1.2(d)).

G. ARE THE LECS' PROVISIONS REGARDING NOTICE TO OR FROM INTERCONNECTORS IN THE EVENT OF SERVICE TERMINATIONS REASONABLE?

RESPONSE:

The NTCs' tariff provisions regarding notice to or from interconnectors in the event of service terminations are reasonable.

The tariff contains several different notice provisions. In the event the NTCs are required to reclaim any multiplexing node, cable space or conduit being used by the interconnector in order to fulfill their obligations to provide service to their customers, the interconnector will be provided with six months notice of termination, or such shorter period if required by law. This lengthy termination period provides the interconnector with adequate time to remove its equipment and for the NTCs to work with the interconnector to provide an alternate physical collocation arrangement or, if necessary, a virtual collocation arrangement.

If space is not being efficiently used, ¹ the NTCs reserve the right to terminate the interconnector's arrangement on ninety days notice. ² A shorter notice period is

See Appendix F for a more complete discussion of efficient use.

Section 28.1.2(d).

reasonable in these circumstances since the interconnector's arrangement will only be terminated if (1) the space is required by the NTCs or another interconnector to provide service; and (2) no other space in the NTC central office is available for the purpose. Moreover, a relatively shorter termination period will not inconvenience the interconnector since in this case there is no operational interconnection arrangement to be removed and relocated.

In the event of a violation of tariff provisions by the interconnector, the NTCs reserve the right to terminate the interconnection arrangement on 60 days notice. This provision is commercially reasonable and provides the interconnector with a somewhat longer notice period than is typically contained in commercial agreements.

The tariff also permits the interconnector to terminate the interconnection arrangement for cause, or for no cause, on sixty days' notice. 4 Thus, the interconnector retains the right to terminate its interconnection arrangement for convenience, a right which is not retained by the NTCs. Moreover, the notice periods for termination for cause are the same for both the interconnector and the NTCs.

³ Section 28.7.12.

⁴ Ibid.

H. ARE THE LECs' PROVISIONS PERMITTING THEM TO TERMINATE A COLLOCATION ARRANGEMENT REASONABLE?

RESPONSE:

As discussed in Appendices F and G, the NTCs' tariff contains reasonable provisions permitting the NTCs to terminate an expanded interconnection arrangement if the NTCs require the space to fullfil their obligations to provide service or, in limited circumstances, if the space is not being "efficiently used" by the interconnector. In addition to these provisions the NTCs' tariff also contains a reasonable provision permitting termination by either party in the event of a violation of the tariff.

The tariff provides that:

In the event that the customer or the Telephone Company does not comply with the regulations specified in this tariff, the other party shall have the right to discontinue service upon sixty (60) days' written notice to the party not in compliance...

Pursuant to this tariff provision, both the NTCs and the interconnector may also terminate service immediately in the event of the other party's bankruptcy or in the event the provision of either party's services violates state or federal law. These provisions are standard commercial terms, and are entirely reasonable.

¹ Section 28.7.12.

The provisions of this section are entirely mutual. Each party has identical termination rights in the event of a breach by the other party. Moreover, the tariff also provides that the arrangement may not be terminated without notice and an opportunity to cure by the party in default. This assures that interconnection arrangements will not be terminated for relatively minor tariff violations.²

The NTCs' right of termination, or the termination rights of interconnectors, should not be limited only to breaches of "material" tariff terms. By designating some tariff terms as material, the breach of which could result in termination of the interconnection arrangement, while labeling other terms not material, the party not in breach of the tariff would have little or no remedy for the breach by the other party of terms which were not "material".

The NTCs state expanded interconnection tariffs contain comparable termination provisions. In the two years that expanded interconnection has been available, no arrangements have been terminated by either the NTCs or any interconnector.

I. ARE THE LECs' PROVISIONS REGARDING TERMINATION OF COLLOCATION ARRANGEMENTS IN THE EVENT OF CATASTROPHIC LOSS REASONABLE?

RESPONSE:

The NTCs' tariff provisions regarding termination of collocation arrangements in the event of catastrophic loss are reasonable. The tariff provides that, if the multiplexing node, roof space or associated cable space is partially damaged due to the actions of the NTCs, the NTCs will repair the damage as quickly as reasonably possible, and the charges to the interconnector will be apportioned until the repair is completed. If the multiplexing node, roof space or cable space is totally damaged due to the NTCs' actions, charges to the interconnector will cease until repairs are completed. In the event, however, that the multiplexing node, or the entire building, is so damaged (through no fault of the interconnector) as to require demolition, the NTCs reserve the right to terminate the expanded interconnection arrangement on 90 days notice. 2

The Commission requests comment on several proposals which would require the LECs to include in their tariffs language requiring that, in the event of a catastrophic loss,

¹ Section 28.7.5(a).

² Section 28.7.5(b).

an interconnector's service be restored within specific time periods. These proposals should not be adopted by the Commission.

The NTCs should not be required to place language in their tariffs requiring that, in situations where an interconnector's space is unusable, but where the central office has not been destroyed, alternate expanded interconnection facilities must be provided to the interconnector within three days. Under normal conditions, it would require more than three days to construct the cage and other facilities necessary to accommodate the interconnector's operations. Depending on the damage to the premises, the time necessary to either restore the area where the multiplexing node was originally located, or to rebuild it in a different location in the same office, will likely be even longer than normal. Rather than prescribing a time period for relocation of an interconnector's facilities by the LEC, the Commission should instead permit the LEC and interconnector to work together in the event of a catastrophic loss to relocate the interconnector's service as quickly as reasonably possible.

Situations in which the central office is entirely unusable should be handled in a similar manner. A fire or other casualty in a central office is a devastating event, which can interrupt service to thousands of customers. While the NTCs will, pursuant to their tariff, waive the charges to the interconnector during the time its service is interrupted, it is impossible to provide a specific time period for relocation of the interconnector's facilities to another

office. The Commission should not, therefore, establish specific time periods for mandatory restoration of the interconnector's service but should instead provide the LECs and interconnectors with the flexibility necessary to negotiate mutually acceptable restoration plans in the event of a fire or other casualty. 3

Finally, while in the event of a casualty (due to the NTCs' fault) the NTCs will bear the costs of relocating the multiplexing node enclosure, POT and associated NTC cabling, all other relocation expenses should properly be borne by the interconnector. As with any party that leases space, the interconnector should look to its own insurance to cover the value of its personal property and other expenses associated with damage to the leased space.

It is important to note that the FCC has not prescribed mandatory service restoration timetables for any service, but has instead permitted the LECs to address service-affecting casualties on a case-by-base basis.